THERMAL PRINTER

TSP200 SERIES

USERS MANUAL
GUIDE D'UTILISATION
BEDIENUNGSANLEITUNG
MANUALE DI ISTRUZIONI

star

Federal Communications Commission
Radio Frequency Interference
Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For compliance with the Federal Noise Interference Standard, this equipment requires a shielded cable.

This statement will be applied only for the printers marketed in U.S.A.

Statement of
The Canadian Department of Communications
Radio Interference Regulations

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

The above statement applies only to printers marketed in Canada.

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- *The above notwithstanding, STAR can assume no responsibility for any errors in this manual.*

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APPENDIX 56

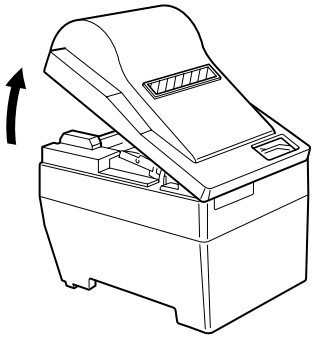
* ESC/POS is a trademark of Seiko Epson Corporation.

1. SETTING THE PAPER

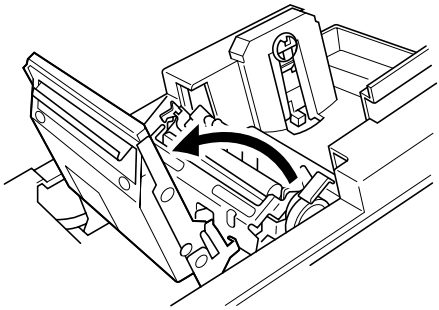
ENGLISH

1-1. Setting the Paper

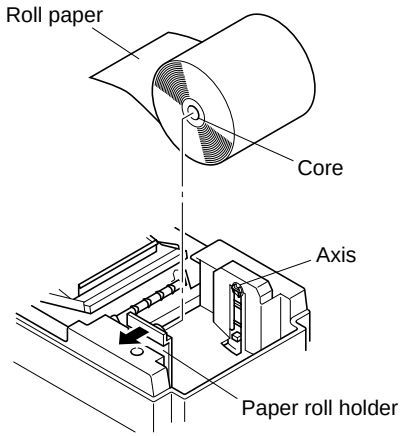
Prepare a roll of paper. Make sure that the feeding edge of the paper is cut in a straight right angle to the direction of feed.



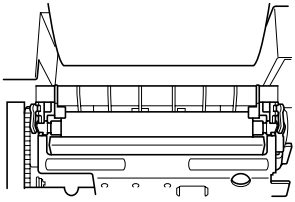
① Open the cover.

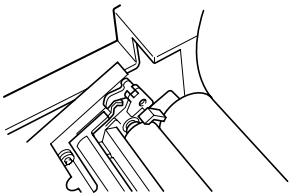


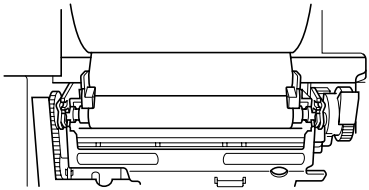
② If the unit has an auto-cutter unit, move the unit in the direction of the arrow until the lock engages. (This step is unnecessary if there is no auto-cutter unit.)

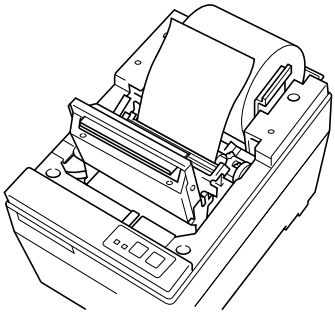


③ Widen the paper holder in the direction of the arrow and position the paper in the manner shown in the illustration. Make sure that the core of the paper is firmly held by the paper holder at this time.









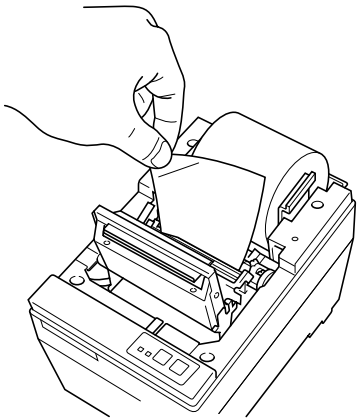
④ **Auto Loading**

Insert the edge of the paper into the opening. The paper is properly inserted when paper extends from the printer mechanism. Check that the paper is protruding approximately 15 to 20 centimeters from printer mechanism. If the paper extends less than 15 centimeters, press the feed key to feed more paper. Once these steps have been taken, remove any remaining slack in the paper.

If the paper has not been inserted straight, it will jam. If this happens, pull the head up lever towards you and pull on the edge of the paper until the paper is moving straight. After confirming that 15 to 20 centimeters of paper is extending from the printer, push the head up lever back to the previous position.

Manual Loading

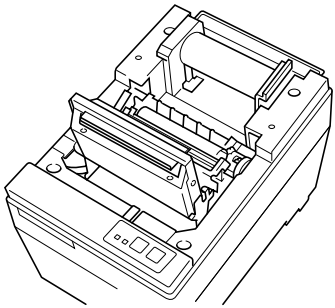
Pull the head up lever forward to bring the print head into the up position. Insert the edge of the paper into the opening and turn the green knob located near the head up lever until the edge of the paper protrudes from the printer mechanism. Grab the edge of the paper and pull the paper until it is moving straight. After confirming that 15 to 20 centimeters of paper is extending from the printer, push the head up lever back to the previous position.



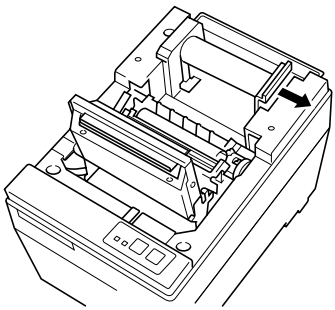
⑤ Hold the edge of the paper and press it against the head and cut it. Be careful not to cut your hands or fingers on the edge of the auto-cutter unit.

⑥ Close the auto-cutter unit. (This step is unnecessary if there is no auto-cutter unit.)
⑦ Close the cover and press the on-line switch. The on-line lamp will come on.

1-2. Changing the Paper



① If the near-end sensor is operating and there is still paper on the roll, cut the paper just before the paper opening and then press the (feed) switch until the feed of paper stops.
② Open the cover and pull the head up lever forward so the print head is in the up position and pull the paper out.
③ Widen the paper holder in the direction of the arrow and remove paper roll or the core.



④ Follow the procedure outlined in "1-1 Setting the Paper" to replace the paper roll.

1-3. Paper Jams

① Turn the power off and open the cover.
② If the unit has an auto-cutter unit, move the unit in the direction of the arrow until the lock engages. (This step is unnecessary if there is no auto-cutter unit.)
③ Cut the roll of paper just before the paper opening and remove the paper.
④ Using the same procedure outlined for cleaning the head, push the head open lever back to release the set cover system and to place the head in the open position.
⑤ Remove the paper jam. If the jam cannot be removed, turn the feed knob and remove the paper.
⑥ Once the paper jam has been removed, press the top of the set cover and engage the head open lever.

Caution

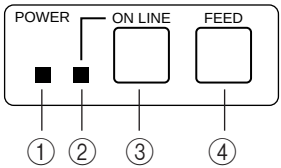
If the paper jam is in the auto-cutter, insert a Phillips screwdriver into the right side of the auto-cutter and use it to turn the internal gears to free the paper jam.

2. CONTROL PANEL

2-1. Power ON

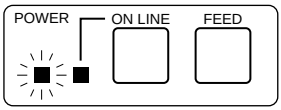
Operating Panel

Paper - Yes



① Power Lamp (Green LED)
② On-Line Lamp (Green LED)
③ On-Line Switch
④ Feed Switch

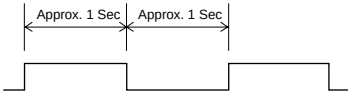
Paper - No



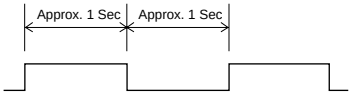
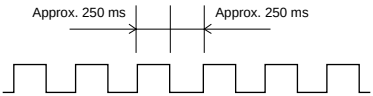
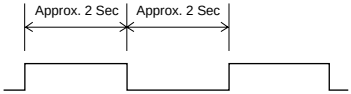
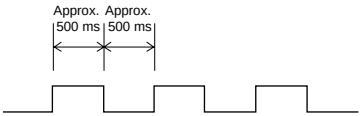
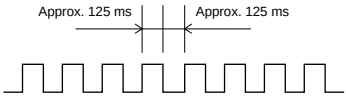
When the power switch is turned on, the Power Lamp and On-Line Lamp will come on. If there is no paper, the Power Lamp will flash at approximately one second intervals.

2-2. Errors

1) Automatic Recovery (Power Lamp: Flashing; On-Line Lamp: On)

Error Description	Power Lamp Flashing Pattern	Recovery Conditions
Abnormal head temperature		Automatic recovery after head temperature lowers.

2) Recoverable Errors (Power Lamp: Flashing; On-Line Lamp: Off)

Error Description	Power Lamp Flashing Pattern	Recovery Conditions
No paper		Insert paper and press on-line switch. (Star) Insert paper and close cover. (ESC/POS)
Head up		Lower head and press on-line switch. (Star) Lower head and close cover. (ESC/POS)
Paper near end of roll		Press on-line switch and printing will continue. Both lamps light when printing and power lamp flashes and on-line lamp lights when on-line. (Star) Same as “No paper”. (ESC/POS)
Cover is open		Close cover and press on-line switch. (Star) Close cover. (ESC/POS)
Error during paper cutting		If the blade is at the home position, press on-line switch to continue printing. If the blade is not at the home position, it is not a recoverable error. (Star) Command (ESC/POS)

3) Fatal Error (Power Lamp: Flashing; On-Line Lamp: Flashing) the unit will have to be repaired.

3. CAUTIONS

3-1. Operating Cautions

① The service life of the thermal print head cannot be guaranteed if any paper other than the recommended paper is used. There will be a noticeable decline in the service life of the thermal element of the print head when the paper used contains (Na+, K++, CI-).
② Never print when there is water or any form of moisture, such as from condensation, on the surface of the print head.

3-2. Safety Cautions

① Never touch the thermal print head or motor during printing or immediately after printing as these components are very hot.
② Never touch any moving parts, such as gears or knobs, during printing.
③ Always use care near the edges of printer components, especially metal components, as they may cause injury.

4. COMMAND SUMMARY

4-1. Star Mode

Commands to Select Characters

Control codes	Hexadecimal codes	Function
<ESC> "R" *n*	1B 52 *n*	Select international character set
<ESC> "/" "1" <ESC> "/" <1>	1B 2F 31 1B 2F 01	Select slash zero
<ESC> "/" "0" <ESC> "/" <0>	1B 2F 30 1B 2F 00	Select normal zero
<ESC> "b" *n1 n2 n3 n4 d1 ...* <RS>	1B 62 *n1 n2 n3 n4 d1 ... 1E*	Select bar code printing
<ESC> "M"	1B 4D	Select 12-dot pitch printing
<ESC> "p"	1B 70	Select 14-dot pitch printing
<ESC> "P"	1B 50	Select 15-dot pitch printing
<ESC> ":"	1B 3A	Select 16-dot pitch printing
<ESC> <SP> *n*	1B 20 *n*	Set character spacing
<SO>	0E	Sets the printing magnified double in character width.
<DC4>	14	Resets the printing magnified in character width.
<ESC> "W" *n*	1B 57 *n*	Sets the magnification rate in character width.
<ESC> <SO>	1B 0E	Sets the printing magnified double in character height.
<ESC> <DC4>	1B 14	Resets the printing magnified in character height.
<ESC> "h" *n*	1B 68 *n*	Sets the magnification rate in character height.
<ESC> "i" *n1 n2*	1B 69 *n1 n2*	Sets the magnification rates in character width and height.
<ESC> "–" "1" <ESC> "–" <1>	1B 2D 31 1B 2D 01	Select underlining
<ESC>"–" "0" <ESC> "–" <0>	1B 2D 30 1B 2D 00	Cancel underlining
<ESC> "_" "1" <ESC> "_" <1>	1B 5F 31 1B 5F 01	Select overlining
<ESC> "_" "0" <ESC> "_" <0>	1B 5F 30 1B 5F 00	Cancel overlining

Control codes	Hexadecimal codes	Function
<ESC> “4”	1B 34	Select highlight printing
<ESC> “5”	1B 35	Cancel highlight printing
<SI>	0F	Inverted printing
<DC2>	12	Cancel inverted printing
<ESC> “E” <ESC> “G”	1B 45 1B 47	Select emphasized printing
<ESC> “F” <ESC> “H”	1B 46 1B 48	Cancel emphasized printing

Commands to Set the Page Format

Control codes	Hexadecimal codes	Function
<ESC> “C” *n*	1B 43 *n*	Set page length in lines
<ESC> “C” <0> *n*	1B 43 00 *n*	Set page length in inches
<ESC> “N” *n*	1B 4E *n*	Set bottom margin
<ESC> “O”	1B 4F	Cancel bottom margin
<ESC> “l” *n*	1B 6C *n*	Set left margin
<ESC> “Q” *n*	1B 51 *n*	Set right margin

Commands to Move the Print Position

Control codes	Hexadecimal codes	Function
<LF>	0A	Line feed
<CR>	0D	Carriage Return
<ESC> “a” *n*	1B 61 *n*	Feed paper *n* lines
<FF>	0C	Form feed
<HT>	09	Horizontal tab
<VT>	0B	Vertical tab
<ESC> “z” “1” <ESC> “z” <1>	1B 7A 31 1B 7A 01	Set line spacing to 4 mm
<ESC> “0”	1B 30	Set line spacing to 3 mm
<ESC> “J” n	1B 4A *n*	One time n/4 mm feed
<ESC> “j” n	1B 6A *n*	One time n/4 mm backfeed
<ESC> “B” *n1 n2* ... <0>	1B 42 *n1 n2* ... 00	Set vertical tab stops
<ESC> “D” *n1 n2* ... <0>	1B 44 *n1 n2* ... 00	Set horizontal tab stops

Commands to Print Dot Graphics

Control codes	Hexadecimal codes	Function
<ESC> "K" *n* <0> *m1 m2* ...	1B 4B *n* 00 *m1 m2* ...	Print normal density graphics
<ESC> "L" *n1 n2 m1 m2* ...	1B 4C *n1 n2 m1 m2* ...	Print high density graphics
<ESC> "k" *n* <0> *m1* ...	1B 6B *n* 00 *m1* ...	Print fine density graphics

Commands to Print Download Characters

Control codes	Hexadecimal codes	Function
<ESC> "&" "1" "1" *n m1 m2 ... m48*	1B 26 31 31 *n m1 m2 ... m48*	Define download character
<ESC> "&" <1> <1> *n m1 m2 ... m48*	1B 26 01 01 *n m1 m2 ... m48*	
<ESC> "&" "1" "0" *n*	1B 26 31 30 *n*	Delete a download character
<ESC> "&" <1> <0> *n*	1B 26 01 00 *n*	
<ESC> "%" "1" <ESC> "%" <1>	1B 25 31 1B 25 01	Enable download character set
<ESC> "%" "0" <ESC> "%" <0>	1B 25 30 1B 25 00	Disable download character set

Commands to Control Peripheral Devices

Control codes	Hexadecimal codes	Function
<ESC> <BEL> *n1 n2*	1B 07 *n1 n2*	Define drive pulse width for peripheral device #1
<BEL>	07	Control peripheral device #1
<FS>	1C	Control peripheral device #1 immediately
<EM>	19	Control peripheral device #2 immediately
<SUB>	1A	Control peripheral device #2 immediately

Commands to Control Auto Cutter

Control codes	Hexadecimal codes	Function
<ESC> "d" "0" <ESC> "d" <0>	1B 64 30 1B 64 00	Full-cut command to the auto cutter
<ESC> "d" "1" <ESC> "d" <1>	1B 64 31 1B 64 01	Partial-cut command to the auto cutter

Other Commands

Control codes	Hexadecimal codes	Function
<CAN>	18	Cancel last line & Initialize printer
<DC3>	13	Deselect printer
<DC1>	11	Set select mode
<RS>	1E	Beep the buzzer
<ESC> "#N, n1 n2 n3 n4" <LF> <NUL>	1B 23 N 2C n1 n2 n3 n4 0A 00	Set memory switch
<ESC> "@"	1B 40	Initialize printer
<ENQ>	05	Enquiry
<ESC> "?" <LF> <NUL>	1B 3F 0A 00	Reset printer hardware

4-2. ESC/POS Mode

Control Code	Hexadecimal Code	Function
HT	09	Horizontal tab
LF	0A	Print line feed
FF	0C	Page mode print and return
DLE EOT	10 04	Real time transmission of status
DLE ENQ	10 05	Real time request to printer
CAN	18	Cancel print data in page mode
ESC FF	1B FF	Print page mode data
ESC SP	1B 20	Set right space amount of character
ESC !	1B 21	Universal print mode designation
ESC #	1B 23	Set memory switch
ESC $	1B 24	Designate absolute printing
ESC %	1B 25	Designate/cancel download character set
ESC &	1B 26	Define download characters
ESC *	1B 2A	Designate bit image mode
ESC -	1B 2D	Designate/cancel underline
ESC 2	1B 32	Set 1/6 inch line feed amount
ESC 3	1B 33	Set line feed amount
ESC =	1B 3D	Select peripheral equipment
ESC ?	1B 3F	Delete download characters
ESC @	1B 40	Initialize printer
ESC D	1B 44	Set horizontal tab position
ESC E	1B 45	Designate/cancel emphasized print
ESC G	1B 47	Designate/cancel double print
ESC J	1B 4A	Print and paper feed
ESC L	1B 4C	Select page mode
ESC R	1B 52	Select international characters
ESC S	1B 53	Select standard mode
ESC T	1B 54	Select character print direction in print mode
ESC V	1B 56	Designate/cancel 90° character rotation
ESC W	1B 57	Set print range in page mode
ESC \	1B 5C	Designate relative position
ESC a	1B 61	Align position
ESC c4	1B 63 34	Select no valid paper detector at print stop
ESC c5	1B 63 35	Enable/disable panel switch
ESC d	1B 64	Print and paper feed “n” lines
ESC i	1B 69	Partial cut (one section remaining)
ESC p	1B 70	Designate pulse generation
ESC t	1B 74	Select character code table

Control Code	Hexadecimal Code	Function
ESC u	1B 75	Transmission of peripheral equipment status
ESC v	1B 76	Transmission of paper detection status
ESC {	1B 7B	Designate/cancel inverted printing
GS !	1D 21	Designate character size
GS $	1D 24	Designate absolute position of vertical direction of characters in page mode
GS *	1D 2A	Define download bit image
GS /	1D 2F	Print download bit image
GS :	1D 3A	Start/finish macro definition
GS B	1D 42	Designate/cancel reverse printing
GS H	1D 48	Select print position of HRI characters
GS I	1D 49	Printer ID transmission
GS L	1D 4C	Set left margin
GS P	1D 50	Set basic calculated pitch
GS V	1D 56	Paper cut
GS W	1D 57	Set print range
GS \	1D 5C	Designate the relative position of vertical characters when printing in the page mode
GS ^	1D 5E	Execute macro
GS a	1D 61	Enable/disable automatic status transmission
GS f	1D 66	Select HRI character font
GS h	1D 68	Set bar code height
GS k	1D 6B	Printing of bar code
GS r	1D 72	Transmission of status
GS w	1D 77	Set lateral size of bar code

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APPENDICE 56

L'appendice n'est pas traduit.

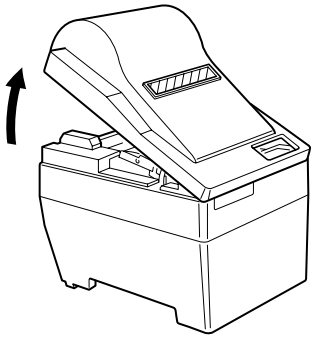
* ESC/POS est une marque de fabrique de Seiko Epson Corporation.

1. MISE EN PLACE DU PAPIER

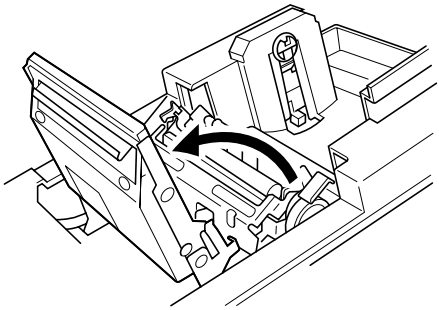
1-1. Mise en place du papier

Préparer un rouleau de papier. S'assurer que le bord du papier est coupé à angle droit par rapport à la direction d'avance du papier.

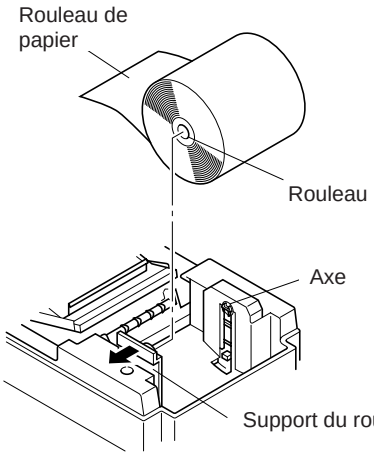
FRANÇAIS



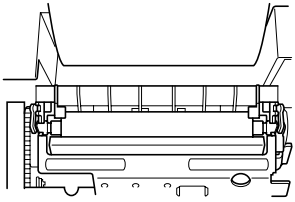
① Ouvrir le capot.

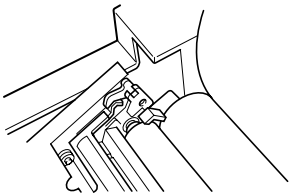


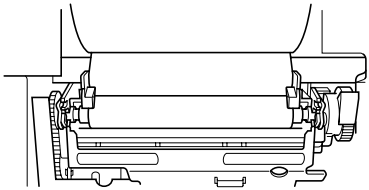
② Si l'imprimante dispose d'un mécanisme de découpe automatique, déplacer ce dernier dans la direction indiquée par la flèche jusqu'à ce que le verrouillage soit effectué. (Ignorer cette étape si l'appareil ne dispose pas de mécanisme de découpe automatique.)

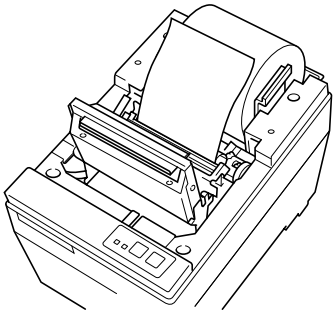


③ Ecarter le support du rouleau de papier dans la direction indiquée par la flèche et installer le rouleau de papier de la manière illustrée ci-contre. S'assurer lors de cette étape que le rouleau de papier est maintenu fermement en place par son support.







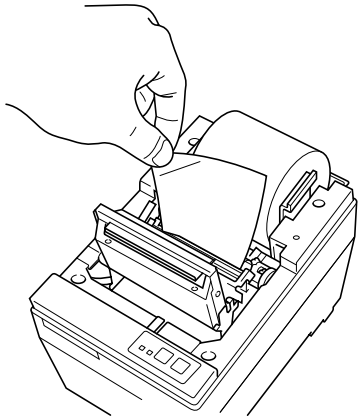


④ **Chargement automatique**

Insérer le bord du papier dans l'ouverture. S'assurer que le papier est correctement inséré en vérifiant s'il ressort du mécanisme d'impression. Le papier doit ressortir de 15 à 20 cm du mécanisme d'impression. Si la portion de papier ressortant du mécanisme d'impression est inférieure ou égale à 15 cm, appuyer sur la touche d'avance FEED afin de faire avancer le papier. Une fois ces étapes effectuées, s'assurer qu'il n'y a pas de mou dans le papier. Si le papier n'est pas correctement inséré, cela provoquera un bourrage. En cas de bourrage, tirer le levier vert de la tête de l'imprimante vers soi et tirer sur le bord du papier jusqu'à ce qu'il avance de façon correcte. Après s'être assuré que 15 à 20 cm de papier ressortent de l'imprimante, pousser le levier vert de la tête de l'imprimante jusqu'à sa position originale.

Chargement manuel

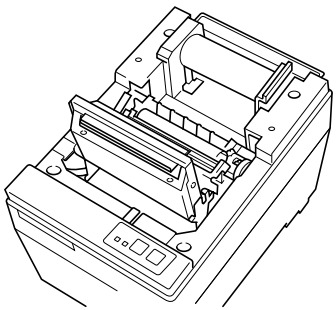
Tirer le levier vert de la tête de l'imprimante vers l'avant afin d'amener la tête d'impression en position supérieure. Insérer le bord de la feuille de papier dans l'ouverture et tourner le bouton vert situé à proximité du levier de la tête de l'imprimante jusqu'à ce que le bord du papier ressorte du mécanisme d'impression. Saisir le bord du papier et tirer ce dernier jusqu'à ce qu'il se déplace correctement. Après s'être assuré que 15 à 20 cm de papier ressortent de l'imprimante, pousser le levier vert de la tête de l'imprimante jusqu'à sa position originale.



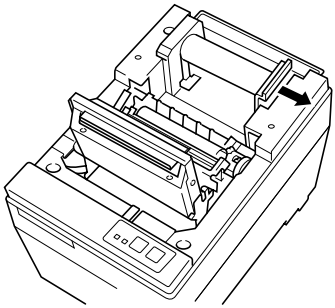
⑤ Tenir le bord du papier et appuyer ce dernier contre la tête et effectuer la découpe. Prudence! Veiller à ne pas se couper les mains ou les doigts sur le bord tranchant du mécanisme de découpe automatique.

⑥ Refermer le mécanisme de découpe automatique. (Ignorer cette étape si l'appareil ne dispose pas de mécanisme de découpe automatique.)
⑦ Refermer le capot et appuyer sur le commutateur ON LINE (en ligne). Le témoin ON LINE s'allume alors.

1-2. Changement de rouleau de papier



① Si le capteur de fin de rouleau fonctionne lorsqu'il reste du papier sur le rouleau, couper le papier juste avant l'ouverture et appuyer ensuite sur la touche FEED jusqu'à ce que l'avance du papier cesse.
② Ouvrir le capot et tirer le levier vert de la tête de l'imprimante vers l'avant de sorte à ce que la tête d'impression soit en position supérieure, et retirer le papier.
③ Ecarter le support du rouleau de papier dans la direction indiquée par la flèche et retirer le rouleau.



④ Pour remplacer le rouleau de papier, suivre les étapes de la section “1-1. Mise en place du papier”.

1-3. Bourrages de papier

① Mettre l’imprimante hors tension et ouvrir le capot.
② Si l’imprimante dispose d’un mécanisme de découpe automatique, déplacer ce dernier jusqu’à ce que le mécanisme soit verrouillé. (Ignorer cette étape si l’appareil ne dispose pas de mécanisme de découpe automatique.)
③ Couper le rouleau de papier juste avant l’ouverture pour le papier et retirer ce dernier.
④ En suivant les instructions données pour le nettoyage de la tête d’impression, pousser les leviers d’ouverture de la tête de l’imprimante vers l’arrière afin de libérer le système de verrouillage du cache et placer la tête en position ouverte.
⑤ Corriger le bourrage de papier. Si cela est impossible, tourner le bouton d’avance et retirer le papier.
⑥ Une fois le bourrage de papier corrigé, appuyer sur le dessus du cache de sorte à bloquer ce dernier via les leviers d’ouverture de la tête de l’imprimante.

Attention

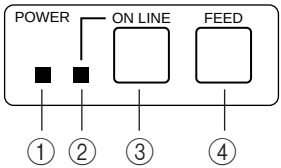
Si le bourrage de papier se situe au niveau du mécanisme de découpe automatique, insérer un tournevis cruciforme dans le côté droit du mécanisme et faire tourner les rouages internes à l’aide du tournevis afin d’éliminer le bourrage.

2. TABLEAU DE COMMANDE

2-1. Mise sous tension

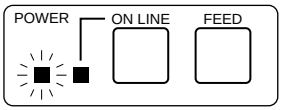
Tableau de commande

Papier chargé



① Témoin d'alimentation POWER (DEL verte)
② Témoin ON LINE (en ligne) (DEL verte)
③ Commutateur ON LINE (en ligne)
④ Touche d'avance FEED

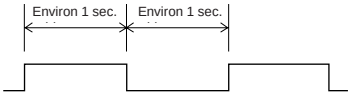
Pas de papier chargé



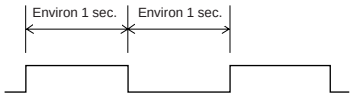
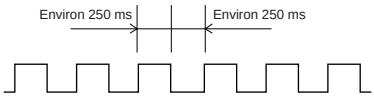
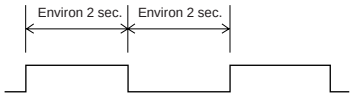
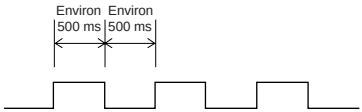
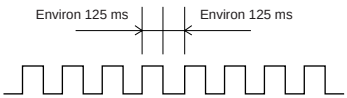
Lorsque l'imprimante est mise sous tension, les témoins d'alimentation POWER et ON LINE (en ligne) s'allument. Si l'imprimante ne contient pas de papier, le témoin POWER clignote à intervalles d'environ une seconde.

2-2. Erreurs

1) Erreurs à correction automatique (témoin POWER clignotant; témoin ON LINE allumé)

Description de l'erreur	Cycle de clignotement du témoin POWER	Correction d'erreur
T° anormale de la tête		Correction automatique après baisse de la t° de la tête.

2) Erreurs corrigibles (témoin POWER clignotant; témoin ON LINE éteint)

Description de l'erreur	Cycle de clignotement du témoin POWER	Correction d'erreur
Pas de papier chargé		Insérer le papier et appuyer sur le commutateur ON-LINE. (Star) Insérer le papier et refermer le capot. (ESC/POS)
Tête en position supérieure		Abaisser la tête d'impression et appuyer sur le commutateur ON-LINE. (Star) Abaisser la tête d'impression et refermer le capot. (ESC/POS)
Fin du rouleau de papier proche		Appuyer sur le commutateur ON-LINE et l'impression se poursuit. Les deux témoins sont allumés pendant l'impression ; le témoin POWER clignote et le témoin ON-LINE est allumé lorsque l'appareil est en ligne. (Star) Voir l'erreur "Pas de papier". (ESC/POS)
Le couvercle est ouvert.		Refermer le capot et appuyer sur le commutateur ON-LINE. (Star) Refermer le capot. (ESC/POS)
Erreur durant la découpe du papier		Si la lame est à sa position d'origine, appuyer sur commutateur ON-LINE afin de poursuivre l'impression. Si la lame n'est pas à sa position d'origine, l'erreur n'est pas réparable. (Star) Commande (ESC/POS)

3) Erreur non-corrigible (témoin POWER clignotant; témoin ON LINE clignotant), il convient de faire réparer l'imprimante.

3. PRECAUTIONS

3-1. Précautions relatives à l'utilisation

① La durée de vie de la tête d'imprimante thermique ne peut être garantie si tout autre papier que celui recommandé est employé. Si le papier utilisé contient du Na+, K++, CI–, la durée de vie de l'élément thermique de la tête d'impression sera considérablement réduite.
② Ne jamais effectuer d'impression lorsque la surface de la tête d'impression est couverte d'eau ou de toute forme d'humidité, telle que la condensation.

3-2. Précautions relatives à la sécurité

① Ne jamais toucher la tête d'imprimante thermique ou le moteur durant l'impression ou immédiatement après l'impression. En effet, ces éléments sont alors extrêmement chauds.
② Ne jamais toucher les éléments mobiles tels que les rouages ou les boutons durant l'impression.
③ Les bords des éléments de l'imprimante, surtout ceux en métal, sont à manier avec une prudence particulière. En effet, ceux-ci pourraient causer des blessures.

4. RESUME DES COMMANDES

4-1. Mode Star

Commandes de sélection de caractères

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> “R” *n*	1B 52 *n*	Sélection du jeu de caractères internationaux
<ESC> “/” “1” <ESC> “/” <1>	1B 2F 31 1B 2F 01	Sélection du zéro barré
<ESC> “/” “0” <ESC> “/” <0>	1B 2F 30 1B 2F 00	Sélection du zéro normal
<ESC> “b” *n1 n2 n3 n4 d1 ...* <RS>	1B 62 *n1 n2 n3 n4 d1 ... 1E*	Sélection d’impression de code à barres
<ESC> “M”	1B 4D	Sélection d’impression de pas 12 points
<ESC> “p”	1B 70	Sélection d’impression de pas 14 points
<ESC> “P”	1B 50	Sélection d’impression de pas 15 points
<ESC> “:”	1B 3A	Sélection d’impression de pas 16 points
<ESC> <SP> *n*	1B 20 *n*	Réglage d’espacement de caractère
<SO>	0E	Réglage d’impression d’agrandissement double de largeur de caractère
<DC4>	14	Nouveau réglage d’impression d’agrandissement de largeur de caractère
<ESC> “W” *n*	1B 57 *n*	Réglage d’agrandissement de largeur de caractère
<ESC> <SO>	1B 0E	Réglage d’impression d’agrandissement double de hauteur de caractère
<ESC> <DC4>	1B 14	Nouveau réglage d’impression d’agrandissement de hauteur de caractère
<ESC> “h” *n*	1B 68 *n*	Réglage d’agrandissement de hauteur de caractère
<ESC> “i” *n1 n2*	1B 69 *n1 n2*	Réglage d’agrandissements de largeur et de hauteur de caractère
<ESC> “–” “1” <ESC> “–” <1>	1B 2D 31 1B 2D 01	Sélection de soulignement
<ESC>“–” “0” <ESC> “–” <0>	1B 2D 30 1B 2D 00	Annulation de soulignement
<ESC> “_” “1” <ESC> “_” <1>	1B 5F 31 1B 5F 01	Sélection de surlignement
<ESC> “_” “0” <ESC> “_” <0>	1B 5F 30 1B 5F 00	Annulation de surlignement

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> “4”	1B 34	Sélection d’impression surintensifiée
<ESC> “5”	1B 35	Annulation d’impression surintensifiée
<SI>	0F	Impression inversée
<DC2>	12	Annulation d’impression inversée
<ESC> “E” <ESC> “G”	1B 45 1B 47	Sélection d’impression mise en valeur
<ESC> “F” <ESC> “H”	1B 46 1B 48	Annulation d’impression mise en valeur

Commandes de réglage du format de page

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> “C” *n*	1B 43 *n*	Réglage de la longueur de page en lignes
<ESC> “C” <0> *n*	1B 43 00 *n*	Réglage de la longueur de page en pouces
<ESC> “N” *n*	1B 4E *n*	Réglage de la marge inférieure
<ESC> “O”	1B 4F	Annulation de la marge inférieure
<ESC> “l” *n*	1B 6C *n*	Réglage de la marche gauche
<ESC> “Q” *n*	1B 51 *n*	Réglage de la marge droite

Commandes de déplacement de la position d’impression

Code de contrôle	Codes hexadécimaux	Fonction
<LF>	0A	Avance de ligne
<CR>	0D	Retour de chariot
<ESC> “a” *n*	1B 61 *n*	Avance de n lignes de papier
<FF>	0C	Saut de page
<HT>	09	Tabulation horizontale
<VT>	0B	Tabulation verticale
<ESC> “z” “1” <ESC> “z” <1>	1B 7A 31 1B 7A 01	Réglage d’espacement de ligne à 4 mm
<ESC> “0”	1B 30	Réglage d’espacement de ligne à 3 mm
<ESC> “J” n	1B 4A *n*	Avance de n/4 mm à la fois
<ESC> “j” n	1B 6A *n*	Recul de n/4 mm à la fois
<ESC> “B” *n1 n2* ... <0>	1B 42 *n1 n2* ... 00	Réglage d’arrêts de tabulation verticale
<ESC> “D” *n1 n2* ... <0>	1B 44 *n1 n2* ... 00	Réglage d’arrêts de tabulation horizontale

Commandes d'impression de graphiques en points

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> "K" *n* <0> *m1 m2* ...	1B 4B *n* 00 *m1 m2* ...	Impression de graphiques densité normale
<ESC> "L" *n1 n2 m1 m2* ...	1B 4C *n1 n2 m1 m2* ...	Impression de graphiques haute densité
<ESC> "k" *n* <0> *m1* ...	1B 6B *n* 00 *m1* ...	Impression de graphiques densité fine

Commandes d'impression de caractères téléchargés

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> "&" "1" "1" *n m1 m2 ... m48*	1B 26 31 31 *n m1 m2 ... m48*	Définition de caractère téléchargé
<ESC> "&" <1> <1> *n m1 m2 ... m48*	1B 26 01 01 *n m1 m2 ... m48*	
<ESC> "&" "1" "0" *n*	1B 26 31 30 *n*	Suppression de caractère téléchargé
<ESC> "&" <1> <0> *n*	1B 26 01 00 *n*	
<ESC> "%" "1" <ESC> "%" <1>	1B 25 31 1B 25 01	Validation d'un jeu de caractères téléchargés
<ESC> "%" "0" <ESC> "%" <0>	1B 25 30 1B 25 00	Invalidation d'un jeu de caractères téléchargés

Commandes de pilotage des périphériques

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> <BEL> *n1 n2*	1B 07 *n1 n2*	Définition de la largeur d'impulsion d'entraînement du périphérique #1
<BEL>	07	Pilotage du périphérique #1
<FS>	1C	Pilotage immédiat du périphérique #1
<EM>	19	Pilotage immédiat du périphérique #2
<SUB>	1A	Pilotage immédiat du périphérique #2

Commandes de pilotage du mécanisme automatique de découpe

Code de contrôle	Codes hexadécimaux	Fonction
<ESC> "d" "0" <ESC> "d" <0>	1B 64 30 1B 64 00	Commande de découpe complète au mécanisme automatique
<ESC> "d" "1" <ESC> "d" <1>	1B 64 31 1B 64 01	Commande de découpe partielle au mécanisme automatique

Autres commandes

Code de contrôle	Codes hexadécimaux	Fonction
<CAN>	18	Annulation de la dernière ligne et initialisation de l'imprimante
<DC3>	13	Désélection de l'imprimante
<DC1>	11	Réglage du mode de sélection
<RS>	1E	Retentissement de l'avertisseur
<ESC> "#N, n1 n2 n3 n4" <LF> <NUL>	1B 23 N 2C n1 n2 n3 n4 0A 00	Réglage du commutateur de mémorisation
<ESC> "@"	1B 40	Initialisation de l'imprimante
<ENQ>	05	Interrogation
<ESC> "?" <LF> <NUL>	1B 3F 0A 00	Initialisation de l'imprimante

4-2. Mode ESC/POS

Code de commande	Code hexadécimal	Fonction
HT	09	Tabulation horizontale
LF	0A	Avance de ligne
FF	0C	Impression mode de page et retour
DLE EOT	10 04	Transmission d'état en temps réel
DLE ENQ	10 05	Demande à l'imprimante en temps réel
CAN	18	Annulation des données d'impression en mode de page
ESC FF	1B FF	Impression des données en mode de page
ESC SP	1B 20	Réglage d'espacement des caractères
ESC !	1B 21	Désignation du mode d'impression universel
ESC #	1B 23	Commutateur de réglage de la mémoire
ESC $	1B 24	Désignation de l'impression absolue
ESC %	1B 25	Désignation/annulation du jeu de caractères téléchargés
ESC &	1B 26	Définition des caractères téléchargés
ESC *	1B 2A	Désignation du mode d'image de bit
ESC -	1B 2D	Désignation/annulation du soulignement
ESC 2	1B 32	Réglage de l'avance de ligne de 1/6ème de pouce
ESC 3	1B 33	Réglage de l'avance de ligne
ESC =	1B 3D	Sélection de l'équipement périphérique
ESC ?	1B 3F	Effacement des caractères téléchargés
ESC @	1B 40	Initialisation de l'imprimante
ESC D	1B 44	Réglage de la position de la tabulation horizontale
ESC E	1B 45	Désignation/annulation d'impression mise en valeur
ESC G	1B 47	Désignation/annulation d'impression double
ESC J	1B 4A	Impression et avance de papier
ESC L	1B 4C	Sélection du mode de page
ESC R	1B 52	Sélection des caractères internationaux
ESC S	1B 53	Sélection du mode standard
ESC T	1B 54	Sélection de la direction d'impression des caractères en mode d'impression
ESC V	1B 56	Désignation/annulation de la rotation de 90° des caractères
ESC W	1B 57	Réglage de la plage d'impression en mode de page
ESC \	1B 5C	Désignation de la position relative
ESC a	1B 61	Alignement de la position
ESC c4	1B 63 34	Pas de sélection de papier valide à l'arrêt d'impression
ESC c5	1B 63 35	Activation/désactivation des commandes du panneau
ESC d	1B 64	Impression et alimentation du papier de "n" lignes
ESC i	1B 69	Découpe partielle (une partie reste attachée)
ESC p	1B 70	Désignation de la génération d'impulsions
ESC t	1B 74	Sélection du tableau des codes de caractères

Code de commande	Code hexadécimal	Fonction
ESC u	1B 75	Transmission de l'état de l'équipement périphérique
ESC v	1B 76	Transmission de l'état de détection du papier
ESC {	1B 7B	Désignation/annulation de l'impression inversée
GS !	1D 21	Désignation de la taille de caractères
GS $	1D 24	Désignation de la position absolue de la direction verticale des caractères en mode de page
GS *	1D 2A	Définition de l'image bit téléchargée
GS /	1D 2F	Impression de l'image bit téléchargée
GS :	1D 3A	Début/fin de la définition macro
GS B	1D 42	Désignation/annulation de l'impression à l'envers
GS H	1D 48	Sélection de la position d'impression des caractères HRI
GS I	1D 49	Transmission de l'identification de l'imprimante
GS L	1D 4C	Réglage de la marge de gauche
GS P	1D 50	Réglage du pas calculé de base
GS V	1D 56	Coupure du papier
GS W	1D 57	Réglage de la plage d'impression
GS \	1D 5C	Désignation de la position relative des caractères verticaux lors de l'impression en mode de page
GS ^	1D 5E	Exécution de macro
GS a	1D 61	Activation/désactivation de la transmission de l'état automatique
GS f	1D 66	Sélection de fonte de caractères HRI
GS h	1D 68	Réglage de la hauteur de codes à barres
GS k	1D 6B	Impression de codes à barres
GS r	1D 72	Transmission d'état
GS w	1D 77	Réglage de la taille latérale de codes à barres

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ANHANG 56

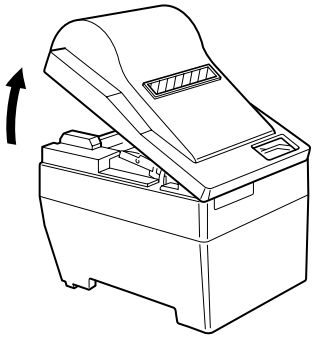
Der Anhand dieser Bedienungsanleitung ist nur in englischer Sprache.

* ESC/POS ist ein Warenzeichen der Seiko Epson Corporation.

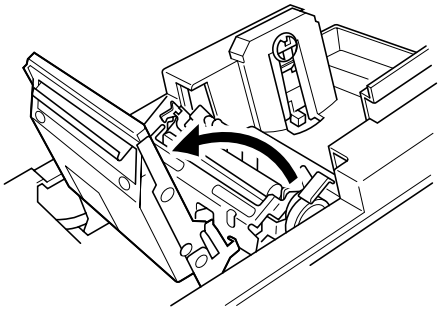
1. PAPIER EINLEGEN

1-1. Papier einlegen

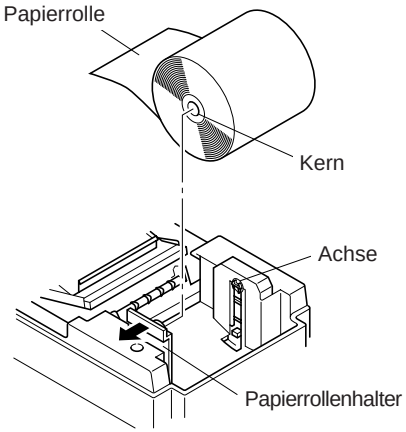
Eine Papierrolle vorbereiten. Sicherstellen, daß die Einzugkante des Papier in geradem Winkel zur Einzugrichtung abgeschnitten ist.



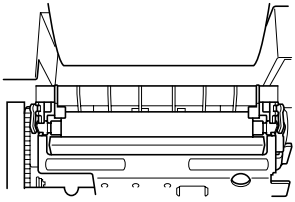
① Druckerabdeckung öffnen.

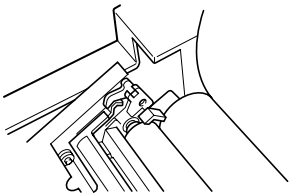


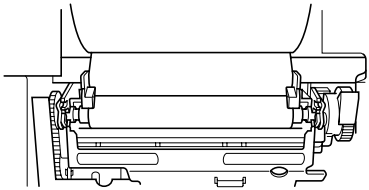
② Wenn das Gerät eine Abschneider hat, diesen in Pfeilrichtung bewegen, bis die Sperre einrastet. (Dieser Schritt ist nicht erforderlich, wenn kein Abschneider vorhanden ist.)

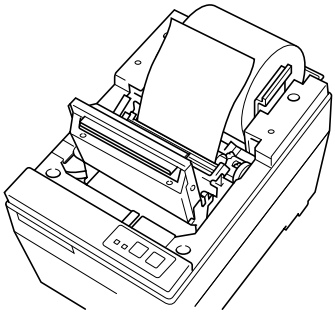


③ Den Papierrollenhalter in Pfeilrichtung drücken und das Papier einlegen, wie in der Abbildung gezeigt. Sicherstellen, daß der Kern des Papiers jetzt vom Papierrollenhalter fest gehalten wird.









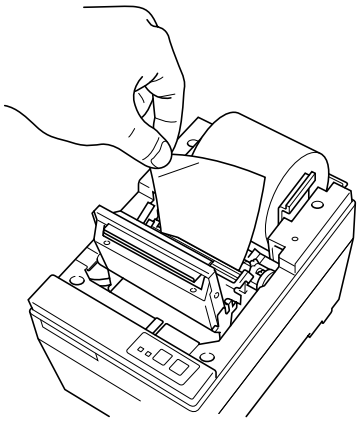
④ **Automatisches Einlegen**

Die Kante des Papiers in die Papierschlitz einführen. Der Drucker erkennt automatisch das Papier und schiebt es 15 - 20 cm vor. Wenn es weniger als 15 cm herausragt, die Vorschubtaste drücken, um es weiter zu bewegen. Danach sicherstellen, daß das Papier straffgezogen ist.

Ist das Papier nicht gerade eingezogent, staut es. Wenn das passiert, den Papier-Freigabehebel nach vorne ziehen, und das Papier herausziehen, bis es sich gerade bewegt. Nachdem sichergestellt ist, daß das Papier um 15 bis 20 cm aus dem Drucker herausragt, den Papier-Freigabehebel in die Ausgangsstellung zurückstellen.

Manuelles Einlegen

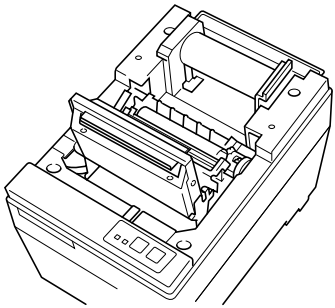
Den Papier-Freigabehebel nach vorne ziehen, um den Druckkopf abzuheben. Die Papierkante in den Papierschlitz einführen und das grüne Zahnrad in der Nähe des Papier-Freigabehebels drehen, bis die Papierkante aus dem Druckermechanismus herausragt. Die Papierkante greifen und das Papier ziehen, bis es gerade herauskommt. Nachdem sichergestellt ist, daß das Papier um 15 bis 20 cm aus dem Drucker herausragt, den Papier-Freigabehebel in die Ausgangsstellung zurückstellen.



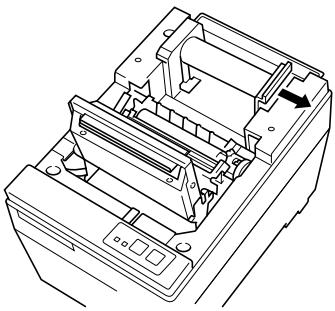
⑤ Überschüssiges Papier an der Metallkante des Druckkopfes abreißen.

⑥ Den Abschneider schließen. (Dieser Schritt ist nicht erforderlich, wenn kein Abschneider vorhanden ist.)
⑦ Die Druckerabdeckung schließen, und die On Line-Taste drücken. Die On Line-LED leuchtet auf.

1-2. Papier wechseln



① Wenn der Papiervorrat-Sensor anspricht und noch Papier auf der Rolle vorhanden ist, das Papier kurz vor der Papieröffnung abschneiden und dann die Feed-Taste drücken, bis der Papiervorschub stoppt.
② Die Druckerabdeckung öffnen, und den Papier-Freigabehebel nach vorne ziehen, so daß der Druckkopf abgehoben ist, und das Papier herausziehen.
③ Den Papierrollenhalter in Pfeilrichtung drücken und die Papierrolle bzw. den Kern entfernen.



④ Die Schritte wie unter “1-1 Papier einlegen” ausführen, um die Papierrolle auszutauschen.

1-3. Papierstau

① Das Gerät ausschalten, und die Druckerabdeckung öffnen.
② Wenn das Gerät einen Abschneider hat, diesen nach vorne ziehen, bis die Sperre einrastet. (Dieser Schritt ist nicht erforderlich, wenn kein Abschneider vorhanden ist.)
③ Die Papierrolle kurz vor der Papierschlitz abschneiden, und das Papier entnehmen.
④ Die Kopföffnungshebel zurückdrücken, um das Abdecksystem freizugeben, und den Kopf in Offen-Stellung stellen.
⑤ Den Papierstau beheben. Wenn der Papierstau nicht behoben werden kann, den Vorschubknopf drehen, und das Papier entfernen.
⑥ Wenn der Papierstau behoben ist, das Abdecksystem oben andrücken, und die Kopföffnungshebel einrasten lassen.

Achtung

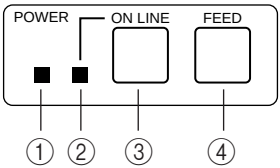
Wenn sich der Papierstau in der automatischen Abschneideinheit befindet, einen Kreuzschlitz-Schraubenzieher in die rechten Seite der automatischen Abschneideinheit einführen und drehen, so daß die internen Zahnräder gedreht werden und den Papierstau beseitigen.

2. BEDIENFELD

2-1. Einschalten

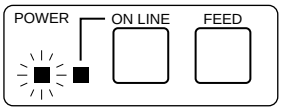
Bedienfeld

Papier - Ja



① Betriebs-LED (grüne LED)
② On Line-LED (grüne LED)
③ On Line-Taste
④ FEED-Taste

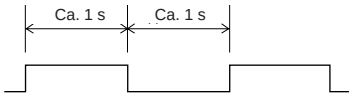
Papier - Nein



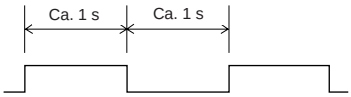
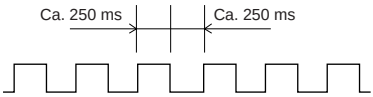
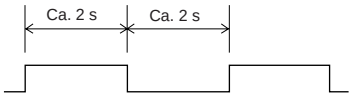
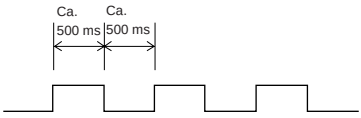
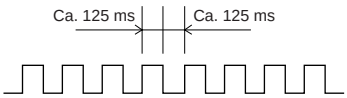
Wenn der Netzschalter eingeschaltet wird, leuchten die Betriebs-LED und die On Line-LED. Wenn kein Papier vorhanden ist, blinkt die Betriebs-LED in Intervallen von etwa einer Sekunde.

2-2. Fehlermeldungen

1) Automatische Fehlerbehebung (Betriebs-LED: Blinkt; On Line-LED: Ein)

Fehlerbeschreibung	Blinkmuster der Betriebs-LED	Behebungszustand
Anormale Kopftemperatur		Automatische Behebung nach Sinken der Kopftemperatur.

2) Behebbare Fehler (Betriebs-LED: Blinkt; On Line-LED: Aus)

Fehlerbeschreibung	Blinkmuster der Betriebs-LED	Behebungszustand
Kein Papier		Papier einlegen und On Line-Taste drücken. (Star) Papier einlegen und Abdeckung schließen. (ESC/POS)
Kopf angehoben		Druckkopf absenken und On Line-Taste drücken. (Star) Druckkopf absenken und Abdeckung schließen. (ESC/POS)
Ende der Papierrolle fast erreicht		On Line-Taste drücken, um den Druck fortzusetzen. Beim Druck leuchten beide Anzeigen. Im On Line-Betrieb blinkt die Betriebs-LED und die On Line-LED leuchtet. (Star) Siehe “Kein Papier-Fehler”. (ESC/POS)
Druckerabdeckung geöffnet		Abdeckung schließen und On Line-Taste drücken. (Star) Abdeckung schließen. (ESC/POS)
Fehler beim Papierschneiden		Ist das Messer in seiner Grundeinstellung, On Line-Taste drücken, um den Druck fortzusetzen. Ist das Messer nicht in seiner Grundstellung, ist der Fehler nicht behebbar. (Star) Befehl (ESC/POS)

3) Fataler Fehler (Betriebs-LED: Blinkt; On Line-LED: Blinkt)

3. BEHANDLUNG DES DRUCKERS

3-1. Vorsichtsmaßregeln zum Betrieb

① Die Lebensdauer des Thermo-Druckkopfs kann nicht garantiert werden, wenn anderes als das empfohlene Papier verwendet wird. Besonders wenn das verwendete Papier (Na+, K++, Cl-) enthält, tritt eine merkbare Verkürzung der Lebensdauer ein.
② Niemals drucken, wenn Wasser oder Feuchtigkeit, wie etwa Kondensation, auf der Oberfläche des Druckkopfes vorhanden ist.

3-2. Sicherheitsregeln

① Niemals den Thermo-Druckkopf oder -Motor beim Drucken oder gleich nach dem Drucken berühren, da sich diese Bauteile stark erhitzen.
② Niemals bewegliche Teile, wie Zahnräder, beim Druckvorgang berühren.
③ Immer in der Nähe von Metallkanten vorsichtig sein, da leicht Verletzungen verursacht werden können.

4. ZUSAMMENFASSUNG DER BEFEHLE

4-1. Star-Betriebsart

Befehle zum Ändern der Zeichendarstellung

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “R” *n*	1B 52 *n*	Internationalen Zeichensatz einstellen
<ESC> “/” “1” <ESC> “/” <1>	1B 2F 31 1B 2F 01	Null mit Schrägstrich wählen
<ESC> “/” “0” <ESC> “/” <0>	1B 2F 30 1B 2F 00	Normale Null wählen
<ESC> “b” *n1 n2 n3 n4 d1 ...* <RS>	1B 62 *n1 n2 n3 n4 d1 ... 1E*	Barcode-Druck aktivieren
<ESC> “M”	1B 4D	Drucken mit 12-Punkt-Größe
<ESC> “p”	1B 70	Drucken mit 14-Punkt-Größe
<ESC> “P”	1B 50	Drucken mit 15-Punkt-Größe
<ESC> “:”	1B 3A	Drucken mit 16-Punkt-Größe
<ESC> <SP> *n*	1B 20 *n*	Zeichenabstand einstellen
<SO>	0E	Druck mit doppelter Zeichenbreite
<DC4>	14	Rückstellen der Zeichenbreite
<ESC> “W” *n*	1B 57 *n*	Zeichenbreite definieren
<ESC> <SO>	1B 0E	Druck mit doppelter Zeichenhöhe
<ESC> <DC4>	1B 14	Rückstellen der Zeichenhöhe
<ESC> “h” *n*	1B 68 *n*	Zeichenhöhe definieren
<ESC> “i” *n1 n2*	1B 69 *n1 n2*	Zeichenbreite und -höhe definieren
<ESC> “–” “1” <ESC> “–” <1>	1B 2D 31 1B 2D 01	Unterstreichen aktivieren
<ESC>“–” “0” <ESC> “–” <0>	1B 2D 30 1B 2D 00	Unterstreichen deaktivieren
<ESC> “_” “1” <ESC> “_” <1>	1B 5F 31 1B 5F 01	Überstreichen aktivieren
<ESC> “_” “0” <ESC> “_” <0>	1B 5F 30 1B 5F 00	Überstreichen deaktivieren
<ESC> “4”	1B 34	Hervorgehobenen Druck aktivieren
<ESC> “5”	1B 35	Hervorgehobenen Druck deaktivieren
<SI>	0F	Inversdruck aktivieren
<DC2>	12	Inversdruck deaktivieren

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “E” <ESC> “G”	1B 45 1B 47	Fettdruck aktivieren
<ESC> “F” <ESC> “H”	1B 46 1B 48	Fettdruck deaktivieren

Befehle zum Festlegen der Seitengröße

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “C” *n*	1B 43 *n*	Seitenlänge in Zeilen definieren
<ESC> “C” <0> *n*	1B 43 00 *n*	Seitenlänge in Zoll definieren
<ESC> “N” *n*	1B 4E *n*	Unteren Rand definieren
<ESC> “O”	1B 4F	Unteren Rand löschen
<ESC> “l” *n*	1B 6C *n*	Linken Rand definieren
<ESC> “Q” *n*	1B 51 *n*	Rechten Rand definieren

Befehle zum Ändern der Druckposition

Steuerbefehle	Hexadezimal-Codes	Funktion
<LF>	0A	Zeilenvorschub
<CR>	0D	Wagenrücklauf
<ESC> “a” *n*	1B 61 *n*	Papier um n Zeilen vorschieben
<FF>	0C	Seitenvorschub
<HT>	09	Horizontaler Tabulator
<VT>	0B	Vertikaler Tabulator
<ESC> “z” “1” <ESC> “z” <1>	1B 7A 31 1B 7A 01	Zeilenvorschub auf 4 mm setzen
<ESC> “0”	1B 30	Zeilenvorschub auf 3 mm setzen
<ESC> “J” n	1B 4A *n*	Einmaliger Vorschub um n/4 mm
<ESC> “j” n	1B 6A *n*	Einmaliger Rückschritt um n/4 mm
<ESC> “B” *n1 n2* ... <0>	1B 42 *n1 n2* ... 00	Vertikale Tabulatoren definieren
<ESC> “D” *n1 n2* ... <0>	1B 44 *n1 n2* ... 00	Horizontale Tabulatoren definieren

Befehle zum Druck von Rastergrafiken

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “K” *n* <0> *m1 m2 ...*	1B 4B *n* 00 *m1 m2 ...*	Grafikdruck in normaler Auflösung
<ESC> “L” *n1 n2 m1 m2 ...*	1B 4C *n1 n2 m1 m2 ...*	Grafikdruck in hoher Auflösung
<ESC> “k” *n* <0> *m1 ...*	1B 6B *n* 00 *m1 ...*	Grafikdruck in maximaler Auflösung

Befehle zum Druck von Download-Zeichen

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “&” “1” “1” *n m1 m2 ... m48*	1B 26 31 31 *n m1 m2 ... m48*	Download-Zeichen definieren
<ESC> “&” <1> <1> *n m1 m2 ... m48*	1B 26 01 01 *n m1 m2 ... m48*	
<ESC> “&” “1” “0” *n*	1B 26 31 30 *n*	Download-Zeichen löschen
<ESC> “&” <1> <0> *n*	1B 26 01 00 *n*	
<ESC> “%” “1” <ESC> “%” <1>	1B 25 31 1B 25 01	Download-Zeichensatz selektieren
<ESC> “%” “0” <ESC> “%” <0>	1B 25 30 1B 25 00	Download-Zeichensatz deselektieren

Befehle zum Steuern von Peripheriegeräten

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> <BEL> *n1 n2*	1B 07 *n1 n2*	Treiberimpuls für Peripheriegerät Nr. 1 definieren
<BEL>	07	Peripheriegerät Nr. 1 steuern
<FS>	1C	Peripheriegerät Nr. 1 ohne Verzögerung steuern
<EM>	19	Peripheriegerät Nr. 2 ohne Verzögerung steuern
<SUB>	1A	Peripheriegerät Nr. 2 ohne Verzögerung steuern

Befehle zum Steuern des automatischen Abschneiders

Steuerbefehle	Hexadezimal-Codes	Funktion
<ESC> “d” “0” <ESC> “d” <0>	1B 64 30 1B 64 00	Befehl an den automatischen Abschneider zum vollen Schnitt
<ESC> “d” “1” <ESC> “d” <1>	1B 64 31 1B 64 01	Befehl an den automatischen Abschneider zum teilweisen Schnitt

Weitere Befehle

Steuerbefehle	Hexadezimal-Codes	Funktion
<CAN>	18	Letzte Zeile löschen und Drucker initialisieren
<DC3>	13	Drucker deaktivieren
<DC1>	11	Aktivierungsmodus definieren
<RS>	1E	Signalton aktivieren
<ESC> “#N, n1 n2 n3 n4” <LF> <NUL>	1B 23 N 2C n1 n2 n3 n4 0A 00	Stellung der Memory-Switches festlegen
<ESC> “@”	1B 40	Drucker initialisieren
<ENQ>	05	Anfrage
<ESC> “?” <LF> <NUL>	1B 3F 0A 00	Druckerhardware zurücksetzen

4-2. ESC/POS Betrieb

Steuerbefehle	Hexadezimal-Codes	Funktion
HT	09	Horizontaler Tabulator
LF	0A	Zeilenvorschub drucken
FF	0C	Seiten-Modus drucken und zurückschalten
DLE EOT	10 04	Echtzeitübertragung des Status
DLE ENQ	10 05	Echtzeitanforderung an Drucker
CAN	18	Druckdaten im Seiten-Modus löschen
ESC FF	1B FF	Druckdaten im Seiten-Modus drucken
ESC SP	1B 20	Zeichenabstand einstellen
ESC !	1B 21	Universal-Druckmodus bestimmen
ESC #	1B 23	Stellung der Memory-Switches festlegen
ESC $	1B 24	Absolute Positionierung
ESC %	1B 25	Download-Zeichensatz EIN / AUS
ESC &	1B 26	Download-Zeichensatz bestimmen
ESC *	1B 2A	Bitmap-Grafik bestimmen
ESC -	1B 2D	Unterstreichen EIN / AUS
ESC 2	1B 32	1/6 Zoll Zeilenvorschub einstellen
ESC 3	1B 33	Zeilenvorschub einstellen
ESC =	1B 3D	Peripheriegeräte wählen
ESC ?	1B 3F	Download-Zeichen löschen
ESC @	1B 40	Drucker initialisieren
ESC D	1B 44	Horizontale Tabulatorposition setzen
ESC E	1B 45	Fettdruck EIN / AUS
ESC G	1B 47	Schattendruck EIN / AUS
ESC J	1B 4A	Druck und Papiereinzug
ESC L	1B 4C	Seiten-Modus wählen
ESC R	1B 52	Internationalen Zeichensatz wählen
ESC S	1B 53	Standard-Modus wählen
ESC T	1B 54	Druckrichtung im Druck-Modus wählen
ESC V	1B 56	90° Zeichendrehung EIN / AUS
ESC W	1B 57	Druckbereich im Seiten-Modus einstellen
ESC \	1B 5C	Relative Positionierung
ESC a	1B 61	Position ausrichten
ESC c4	1B 63 34	Keinen gültigen Papier-Detektor bei Druckstop wählen
ESC c5	1B 63 35	Tasten des Bedienfeldes EIN / AUS
ESC d	1B 64	Druck und Papiervorschub “n” Zeilen
ESC i	1B 69	Teilweise Abschneiden (ein Sektion verbleibend)
ESC p	1B 70	Impulserzeugung bestimmen
ESC t	1B 74	Zeichentabelle wählen

Steuerbefehle	Hexadezimal-Codes	Funktion
ESC u	1B 75	Übertragung des Status von Peripheriegeräten
ESC v	1B 76	Übertragung des Papiererkennungs-Status
ESC {	1B 7B	Invertierter Druck EIN / AUS
GS !	1D 21	Zeichengröße bestimmen
GS $	1D 24	Absolute Position der vertikalen Druckrichtung der Zeichen im Seiten-Modus bestimmen
GS *	1D 2A	Download Bitmap-Grafik bestimmen
GS /	1D 2F	Download Bitmap-Grafik drucken
GS :	1D 3A	Makrodefinition starten / beenden
GS B	1D 42	Reversdruck EIN / AUS
GS H	1D 48	Druckposition der HRI-Zeichen wählen
GS I	1D 49	Drucker ID übertragen
GS L	1D 4C	Linken Rand setzen
GS P	1D 50	Grundlegenden Berechnungsabstand einstellen
GS V	1D 56	Papier abschneiden
GS W	1D 57	Druckbereich einstellen
GS \	1D 5C	Relative Position der vertikalen Druckrichtung der Zeichen im Seiten-Modus bestimmen
GS ^	1D 5E	Makro ausführen
GS a	1D 61	Automatische Statusübertragung EIN / AUS
GS f	1D 66	HRI-Zeichensatz wählen
GS h	1D 68	Barcode-Höhe einstellen
GS k	1D 6B	Barcode drucken
GS r	1D 72	Status übertragen
GS w	1D 77	Laterale Größe des Barcodes einstellen

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APPENDICE 56

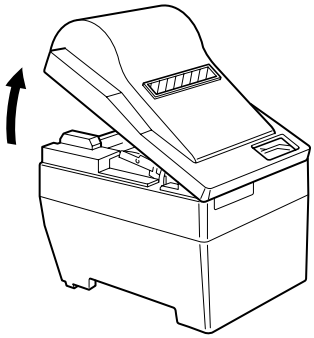
L'Appendice appare solo nella sezione in inglese di questo manuale.

* ESC/POS è un marchio registrato di Seiko Epson Corporation.

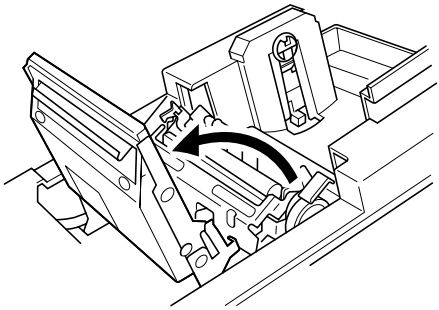
1. CARICAMENTO DELLA CARTA

1-1. Caricamento della carta

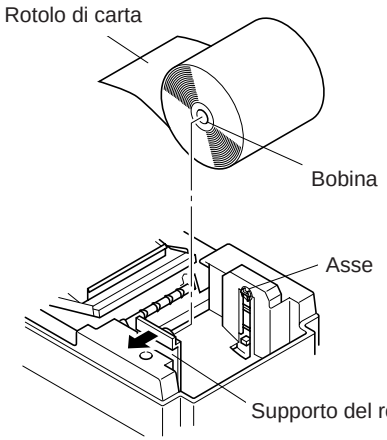
Preparare un rotolo di carta. Accertarsi che il bordo d'entrata della carta sia tagliato perpendicolarmente rispetto alla direzione di avanzamento.



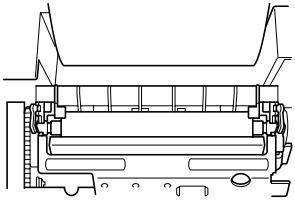
① Aprire il coperchio.

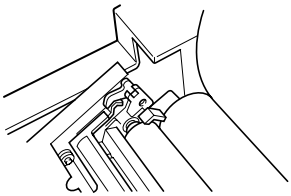


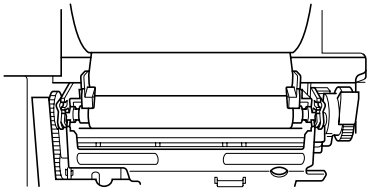
② Se nella stampante è installata la taglierina automatica, spostare la taglierina nella direzione indicata dalla freccia fino al suo arresto (questa operazione non è necessaria se la taglierina automatica non è presente).

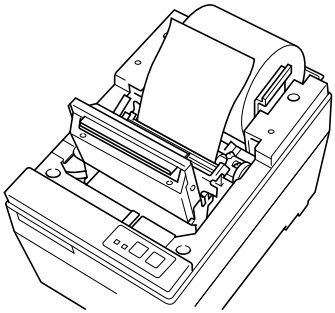


③ Spingere il supporto del rotolo di carta nella direzione indicata dalla freccia e posizionare la carta nel modo illustrato nella figura. Accertarsi che la bobina del rotolo di carta sia bloccata saldamente dal supporto del rotolo di carta.









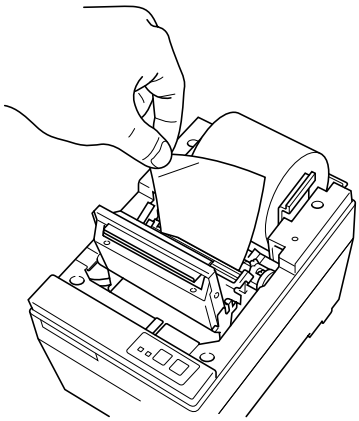
④ **Caricamento automatico**

Inserire il bordo della carta nella fessura. La carta è inserita correttamente quando fuoriesce dal meccanismo della stampante. Verificare che la carta sporga per circa 15-20 centimetri dal meccanismo della stampante. Se la carta sporge per meno di 15 centimetri, premere il tasto Feed per far avanzare più carta. Dopo aver eseguito queste operazioni, tirare la carta allentata.

Se la carta non è stata inserita diritta, si incepperà. In questo caso, tirare la leva alza-testina verso se stessi e tirare il bordo della carta finché questa non si muove in modo rettilineo. Dopo essersi accertati che dalla stampante sporgano 15-20 centimetri di carta, riportare la leva alza-testina nella posizione precedente.

Caricamento manuale

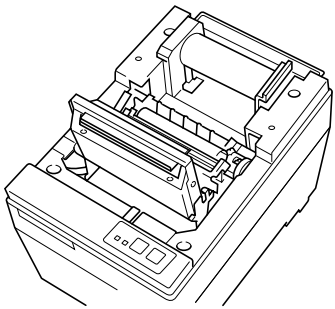
Tirare in avanti la leva alza-testina per portare la testina di stampa in posizione alzata. Inserire il bordo della carta nella fessura e ruotare la manopola verde situata vicino alla leva alza-testina finché il bordo della carta non sporge dal meccanismo della stampante. Afferrare il bordo della carta e tirarlo finché la carta non si muove in modo rettilineo. Dopo essersi accertati che dalla stampante sporgano 15-20 centimetri di carta, riportare la leva alza-testina nella posizione precedente.



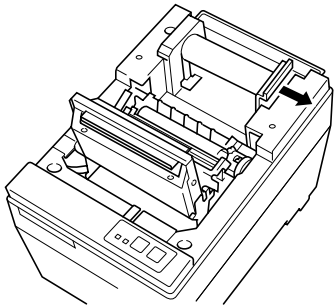
⑤ Prendere il lembo della carta, premerlo contro la testina e tagliarlo. Fare attenzione a non ferirsi le mani o le dita sul bordo della taglierina automatica.

⑥ Chiudere la taglierina automatica (questa operazione non è necessaria se la taglierina automatica non è presente).
⑦ Chiudere il coperchio e premere il tasto On-Line. La spia On-Line si accenderà.

1-2. Sostituzione della carta



① Se il sensore di rilevamento fine carta è abilitato e vi è ancora carta sul rotolo, tagliarla immediatamente prima dell'uscita dalla fessura della carta e quindi tenere premuto il tasto Feed finché l'avanzamento della carta non si arresta.
② Aprire il coperchio e tirare in avanti la leva alza-testina in modo che la testina di stampa sia in posizione alzata ed estrarre la carta.
③ Spingere il supporto del rotolo di carta nella direzione indicata dalla freccia e rimuovere il rotolo di carta o la bobina.



④ Seguire il procedimento descritto nella sezione "1-1. Caricamento della carta" per sostituire il rotolo di carta.

1-3. Inceppamento della carta

① Spegnere la stampante ed aprire il coperchio.
② Se nella stampante è installata la taglierina automatica, spostare la taglierina nella direzione indicata dalla freccia fino al suo arresto (questa operazione non è necessaria se la taglierina automatica non è presente).
③ Tagliarla il rotolo di carta immediatamente prima dell'uscita dalla fessura della carta e rimuovere la carta.
④ Servendosi dello stesso procedimento descritto per la pulizia della testina, spingere la leva di apertura della testina indietro per rilasciare il coperchio del meccanismo e portare la testina in posizione aperta.
⑤ Eliminare l'inceppamento. Se non si riesce a farlo, ruotare la manopola di avanzamento e rimuovere la carta.
⑥ Dopo aver eliminato l'inceppamento, premere il coperchio del meccanismo ed innestare la leva di apertura della testina.

Attenzione

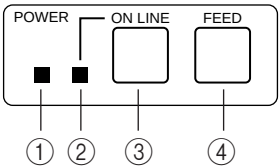
Se l'inceppamento si è verificato nell'area della taglierina automatica, inserire un cacciavite a croce nel fianco destro della taglierina automatica e ruotare gli ingranaggi interni per liberare la carta inceppata.

2. PANNELLO DI CONTROLLO

2-1. Accensione

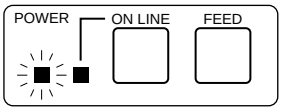
Pannello comandi

Carta caricata



① Spia Power (LED verde)
② Spia On-Line (LED verde)
③ Tasto On-Line
④ Tasto Feed

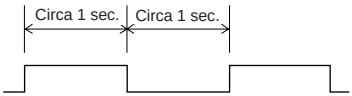
Carta non caricata



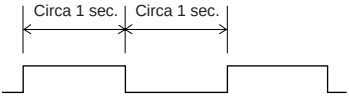
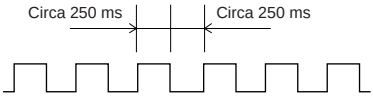
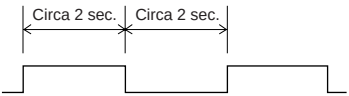
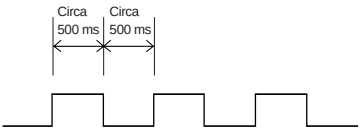
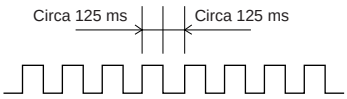
Quando si accende l'interruttore di alimentazione, le spie Power e On-Line si illuminano. Se non vi è carta, la spia Power lampeggerà ad intervalli di circa un secondo.

2-2. Errori

1) Ripristino automatico (spia Power: lampeggiante; spia On-Line: accesa)

Descrizione dell'errore	Frequenza di lampeggiamento spia Power	Condizioni di ripristino
Temperatura della testina troppo elevata		Ripristino automatico all'abbassamento della temperatura della testina.

2) Errori risolvibili (spia Power: lampeggiante; spia On-Line: spenta)

Descrizione dell'errore	Frequenza di lampeggiamento spia Power	Condizioni di ripristino
La carta è terminata		Inserire la carta e premere il tasto On-Line. (Star) Inserire la carta e chiudere il coperchio. (ESC/POS)
La testina è sollevata		Abbassare la testina e premere il tasto On-Line. (Star) Abbassare la testina e chiudere il coperchio. (ESC/POS)
La carta è quasi alla fine del rotolo		Premere il tasto On-Line per far proseguire la stampa. Durante la stampa entrambe le spie si accendono, mentre nel modo online la spia Power lampeggia e la spia On-Line si accende. (Star) Come per "Fine carta". (ESC/POS)
Il coperchio è aperto		Chiudere il coperchio e premere il tasto On-Line. (Star) Chiudere il coperchio. (ESC/POS)
Si è verificato un errore durante il taglio della carta		Se la lama è nella posizione di partenza, premere il tasto On-Line per far proseguire la stampa. Se la lama non è nella posizione di partenza, questo errore non è risolvibile. (Star) Comando. (ESC/POS)

3) Errore irreversibile (spia Power: lampeggiante; spia On-Line: lampeggiante) l'unità dovrà essere riparata.

3. PRECAUZIONI

3-1. Precauzioni d'uso

① La durata prevista della testina di stampa termica non può essere garantita se si utilizza carta diversa da quella raccomandata. Se il tipo di carta utilizzato contiene (Na+, K++, Cl-), si avrà una sensibile diminuzione della durata dell'elemento termico della testina di stampa.
② Non utilizzare la stampante se sulla superficie della testina di stampa si è depositata dell'acqua o si è formata dell'umidità, ad esempio della condensa.

3-2. Precauzioni di sicurezza

① Non toccare mai la testina di stampa termica o il motore durante la stampa o immediatamente dopo la stampa, in quanto questi componenti scottano.
② Non toccare mai alcuna parte in movimento della stampante, come ingranaggi o manopole, durante la stampa.
③ Prestare sempre attenzione quando si opera in prossimità dei bordi dei componenti della stampante, in particolare dei componenti metallici, per evitare di ferirsi.

4. ELENCO DEI COMANDI

4-1. Modo Star

Comandi di selezione caratteri

Codici di controllo	Codici esadecimali	Funzione
<ESC> “R” *n*	1B 52 *n*	Seleziona un set di caratteri internazionali
<ESC> “/” “1” <ESC> “/” <1>	1B 2F 31 1B 2F 01	Seleziona lo zero barrato
<ESC> “/” “0” <ESC> “/” <0>	1B 2F 30 1B 2F 00	Seleziona lo zero normale
<ESC> “b” *n1 n2 n3 n4 d1 ...* <RS>	1B 62 *n1 n2 n3 n4 d1 ... 1E*	Seleziona la stampa dei codici a barre
<ESC> “M”	1B 4D	Seleziona la stampa corpo 12 punti
<ESC> “p”	1B 70	Seleziona la stampa corpo 14 punti
<ESC> “P”	1B 50	Seleziona la stampa corpo 15 punti
<ESC> “:”	1B 3A	Seleziona la stampa corpo 16 punti
<ESC> <SP> *n*	1B 20 *n*	Imposta la spaziatura tra i caratteri
<SO>	0E	Imposta la stampa a doppia larghezza.
<DC4>	14	Annulla la stampa a larghezza ingrandita.
<ESC> “W” *n*	1B 57 *n*	Imposta il fattore d’ingrandimento per la larghezza del carattere.
<ESC> <SO>	1B 0E	Imposta la stampa a doppia altezza.
<ESC> <DC4>	1B 14	Annulla la stampa ad altezza ingrandita.
<ESC> “h” *n*	1B 68 *n*	Imposta il fattore d’ingrandimento per l’altezza del carattere.
<ESC> “i” *n1 n2*	1B 69 *n1 n2*	Imposta i fattori d’ingrandimento per la larghezza e l’altezza del carattere.
<ESC> “–” “1” <ESC> “–” <1>	1B 2D 31 1B 2D 01	Seleziona lo stile sottolineato
<ESC>“–” “0” <ESC> “–” <0>	1B 2D 30 1B 2D 00	Annulla lo stile sottolineato
<ESC> “_” “1” <ESC> “_” <1>	1B 5F 31 1B 5F 01	Seleziona lo stile barrato
<ESC> “_” “0” <ESC> “_” <0>	1B 5F 30 1B 5F 00	Annulla lo stile barrato
<ESC> “4”	1B 34	Seleziona la stampa evidenziata
<ESC> “5”	1B 35	Annulla la stampa evidenziata
<SI>	0F	Seleziona la stampa rovesciata

Codici di controllo	Codici esadecimali	Funzione
<DC2>	12	Annulla la stampa rovesciata
<ESC> “E” <ESC> “G”	1B 45 1B 47	Seleziona la stampa enfatizzata
<ESC> “F” <ESC> “H”	1B 46 1B 48	Annulla la stampa enfatizzata

Comandi di impostazione del formato pagina

Codici di controllo	Codici esadecimali	Funzione
<ESC> “C” *n*	1B 43 *n*	Imposta la lunghezza pagina in righe
<ESC> “C” <0> *n*	1B 43 00 *n*	Imposta la lunghezza pagina in pollici
<ESC> “N” *n*	1B 4E *n*	Imposta il margine inferiore
<ESC> “O”	1B 4F	Annulla il margine inferiore
<ESC> “l” *n*	1B 6C *n*	Imposta il margine sinistro
<ESC> “Q” *n*	1B 51 *n*	Imposta il margine destro

Comandi di spostamento della posizione di stampa

Codici di controllo	Codici esadecimali	Funzione
<LF>	0A	Avanzamento riga
<CR>	0D	Ritorno carrello
<ESC> “a” *n*	1B 61 *n*	Avanzamento carta di n righe
<FF>	0C	Avanzamento pagina
<HT>	09	Tabulazione orizzontale
<VT>	0B	Tabulazione verticale
<ESC> “z” “1” <ESC> “z” <1>	1B 7A 31 1B 7A 01	Imposta l’interlinea a 4 mm
<ESC> “0”	1B 30	Imposta l’interlinea a 3 mm
<ESC> “J” n	1B 4A *n*	Singolo spostamento in avanti di n/4 mm
<ESC> “j” n	1B 6A *n*	Singolo spostamento indietro di n/4 mm
<ESC> “B” *n1 n2* ... <0>	1B 42 *n1 n2* ... 00	Imposta tabulazioni verticali
<ESC> “D” *n1 n2* ... <0>	1B 44 *n1 n2* ... 00	Imposta tabulazioni orizzontali

Comandi di stampa di grafica a matrice di punti

Codici di controllo	Codici esadecimali	Funzione
<ESC> “K” *n* <0> *m1 m2* ...	1B 4B *n* 00 *m1 m2* ...	Stampa la grafica a densità normale
<ESC> “L” *n1 n2 m1 m2* ...	1B 4C *n1 n2 m1 m2* ...	Stampa la grafica ad alta densità
<ESC> “k” *n* <0> *m1* ...	1B 6B *n* 00 *m1* ...	Stampa la grafica a densità fine

Comandi di stampa dei caratteri trasferibili

Codici di controllo	Codici esadecimali	Funzione
<ESC> “&” “1” “1” *n m1 m2 ... m48*	1B 26 31 31 *n m1 m2 ... m48*	Definisce i caratteri trasferibili
<ESC> “&” <1> <1> *n m1 m2 ... m48*	1B 26 01 01 *n m1 m2 ... m48*	
<ESC> “&” “1” “0” *n*	1B 26 31 30 *n*	Cancella un carattere trasferibile
<ESC> “&” <1> <0> *n*	1B 26 01 00 *n*	
<ESC> “%” “1” <ESC> “%” <1>	1B 25 31 1B 25 01	Abilita un set di caratteri trasferibili
<ESC> “%” “0” <ESC> “%” <0>	1B 25 30 1B 25 00	Disabilita un set di caratteri trasferibili

Comandi di controllo di unità periferiche

Codici di controllo	Codici esadecimali	Funzione
<ESC> <BEL> *n1 n2*	1B 07 *n1 n2*	Definisce l’ampiezza del segnale di attivazione dell’unità periferica #1
<BEL>	07	Invia un segnale all’unità periferica #1
<FS>	1C	Invia subito un segnale all’unità periferica #1
<EM>	19	Invia subito un segnale all’unità periferica #2
<SUB>	1A	Invia subito un segnale all’unità periferica #2

Comandi di controllo della taglierina automatica

Codici di controllo	Codici esadecimali	Funzione
<ESC> “d” “0” <ESC> “d” <0>	1B 64 30 1B 64 00	Invia alla taglierina automatica un comando di taglio completo
<ESC> “d” “1” <ESC> “d” <1>	1B 64 31 1B 64 01	Invia alla taglierina automatica un comando di taglio parziale

Altri comandi

Codici di controllo	Codici esadecimali	Funzione
<CAN>	18	Annulla l'ultima riga e inizializza la stampante
<DC3>	13	Deseleziona la stampante
<DC1>	11	Imposta la modalità di selezione
<RS>	1E	Fa emettere un segnale acustico al cicalino
<ESC> "#N, n1 n2 n3 n4" <LF> <NUL>	1B 23 N 2C n1 n2 n3 n4 0A 00	Imposta l'interruttore di memoria
<ESC> "@"	1B 40	Inizializza la stampante
<ENQ>	05	Interrogazione stampante
<ESC> "?" <LF> <NUL>	1B 3F 0A 00	Reset hardware stampante

4-2. Modo ESC/POS

Codice di controllo	Codice esadecimale	Funzione
HT	09	Tabulazione orizzontale
LF	0A	Avanzamento riga
FF	0C	Stampa in modo pagina e ritorno
DLE EOT	10 04	Trasmissione in tempo reale dello stato
DLE ENQ	10 05	Interrogazione in tempo reale della stampante
CAN	18	Cancella i dati di stampa in modo pagina
ESC FF	1B FF	Stampa i dati in modo pagina
ESC SP	1B 20	Imposta il numero di spazi alla destra del carattere
ESC !	1B 21	Imposta il modo di stampa universale
ESC #	1B 23	Imposta l'interruttore di memoria
ESC $	1B 24	Imposta la posizione di stampa assoluta
ESC %	1B 25	Imposta/annulla il set di caratteri trasferibili
ESC &	1B 26	Definisce i caratteri trasferibili
ESC *	1B 2A	Seleziona il modo grafico bitmap
ESC -	1B 2D	Attiva/disattiva la sottolineatura
ESC 2	1B 32	Imposta l'interlinea a 1/6 di pollice
ESC 3	1B 33	Imposta il valore dell'interlinea
ESC =	1B 3D	Seleziona l'unità periferica
ESC ?	1B 3F	Cancella i caratteri trasferibili
ESC @	1B 40	Inizializza la stampante
ESC D	1B 44	Imposta la posizione di tabulazione orizzontale
ESC E	1B 45	Attiva/disattiva la stampa enfatizzata
ESC G	1B 47	Attiva/disattiva la stampa in grassetto
ESC J	1B 4A	Stampa e avanzamento carta
ESC L	1B 4C	Seleziona il modo pagina
ESC R	1B 52	Seleziona i caratteri internazionali
ESC S	1B 53	Seleziona il modo standard
ESC T	1B 54	Seleziona la direzione di stampa del carattere nel modo di stampa
ESC V	1B 56	Attiva/disattiva la rotazione di 90° del carattere
ESC W	1B 57	Definisce l'area di stampa nel modo pagina
ESC \	1B 5C	Imposta la posizione di stampa relativa
ESC a	1B 61	Allinea la posizione di stampa
ESC c4	1B 63 34	Attiva il rilevatore di carta non valida all'arresto della stampa
ESC c5	1B 63 35	Abilita/disabilita i tasti sul pannello di controllo
ESC d	1B 64	Stampa e avanzamento carta di "n" righe
ESC i	1B 69	Taglio parziale (una parte della carta non viene tagliata)
ESC p	1B 70	Definisce la generazione dell'impulso
ESC t	1B 74	Seleziona la tabella dei codici carattere

Codice di controllo	Codice esadecimale	Funzione
ESC u	1B 75	Stato della trasmissione dell'unità periferica
ESC v	1B 76	Stato della trasmissione del rilevatore carta
ESC {	1B 7B	Attiva/disattiva la stampa rovesciata
GS !	1D 21	Imposta la dimensione del carattere
GS $	1D 24	Imposta la posizione di stampa assoluta dei caratteri in direzione verticale in modo pagina
GS *	1D 2A	Definisce la grafica bitmap trasferibile
GS /	1D 2F	Stampa la grafica bitmap trasferibile
GS :	1D 3A	Inizia/termina la definizione della macro
GS B	1D 42	Attiva/disattiva la stampa all'indietro
GS H	1D 48	Seleziona la posizione di stampa dei caratteri HRI
GS I	1D 49	Trasmissione dell'ID della stampante
GS L	1D 4C	Imposta il margine sinistro
GS P	1D 50	Imposta il passo di stampa di base calcolato
GS V	1D 56	Taglio carta
GS W	1D 57	Definisce l'area di stampa
GS \	1D 5C	Imposta la posizione di stampa relativa dei caratteri in direzione verticale in modo pagina
GS ^	1D 5E	Esegue la macro
GS a	1D 61	Abilita/disabilita la trasmissione automatica dello stato
GS f	1D 66	Seleziona il font di caratteri HRI
GS h	1D 68	Imposta l'altezza del codice a barre
GS k	1D 6B	Stampa dei codici a barre
GS r	1D 72	Trasmissione dello stato
GS w	1D 77	Imposta l'ampiezza del codice a barre

APPENDIX

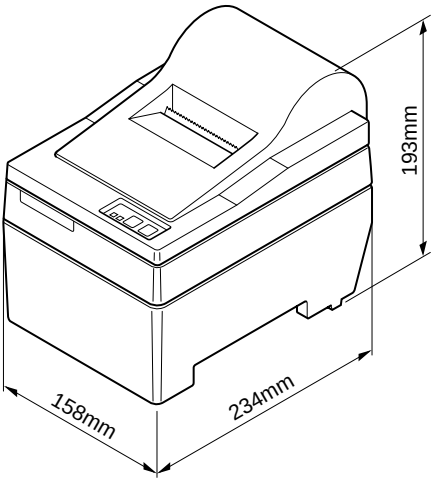
General Specifications

Printing system	Line thermal dot-matrix
Resolution	8 dots/mm (horiz.) x 8 dots/mm (vert.)
Printable width	72mm
Printing speeds	50mm/sec (max.)
Printable characters	ANK, International
Bar codes	JAN, EAN, UPC, Code 39, ITF, Code 128, Code 93, NW-7
Character matrix	12 × 24 dots
Interfaces	RS-232C, Parallel
Dimensions	TSP212: 158(W) × 234(D) × 193(H) mm TSP242: 158(W) × 234(D) × 193(H) mm
Weight	TSP212: 2.8kg TSP242: 3.0kg
Power	(50/60Hz) AC120V, AC230V
Power consumption	Max. 43 W Avg. 19W (During continuous printing of ASCII characters)
Operating environment	+5˚C ~ +40˚C 25% ~ 85% RH
Storage environment	–20˚C ~ +60˚C 10% ~ 90% RH

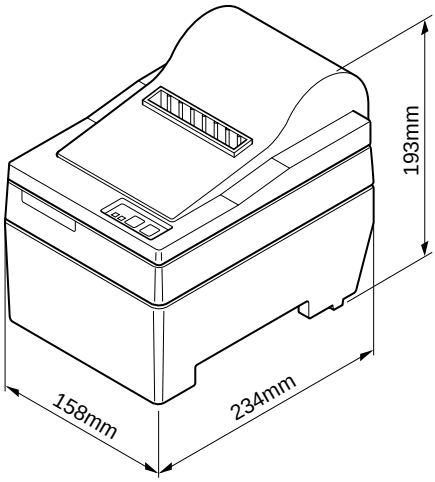
Automatic paper cutter

Life ..... 300, 000 cuts

Min. cut length ..... 25.4mm (1 inch)



(TSP212)



(TSP242)

Memory Switch

Each memory switch is a 16-bit word stored in EEPROM.

The printer is shipped with the factory setting which is made in accordance with its product type.

For the detailed functions and the settings of the Memory switches, please refer to “Programmer’s Manual”.

The factory settings are shown in the table below.

Memory switch	TSP212	TSP242
#0	0000	0000
#1	0000	0000
#2	0000	0100
#3	0000	0000
#4	0000	0000

Paper Specifications

Recommended paper-roll types:
NIPPON PAPER INDUSTRIES TF50KS-E2C

Many paper types are available. Please use paper that meets the following criteria.

1. Paper type — General high-sensitivity thermal paper

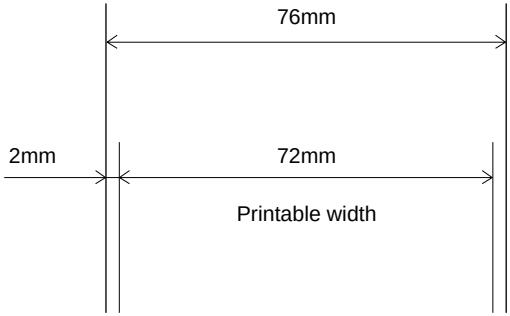
2. Paper width — 76^{0}_{-1} mm

3. Paper thickness — General thermal paper: 67µm

4. Paper rolls — Internal diameter: ø$12^{\pm1}$ mm
   Outer diameter: ø85^{0}_{-2} mm

   The shiny side of the paper is facing outward. Never use any tape or adhesives on the core of the paper.

5. Print area



Cleaning

(1) Head and Platen Cleaning

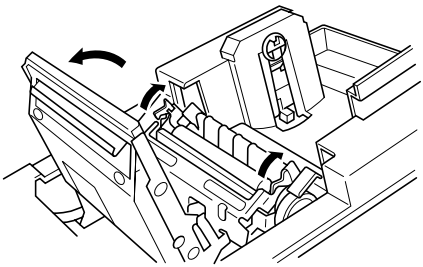
The head and platen should be cleaned periodically to ensure full printing performance. Cleaning using the following procedure is recommended every ten ø85 mm roles of paper.

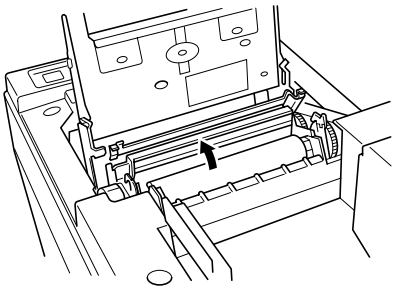
① Turn the power switch off.

② Open the cover.

③ If the unit has an auto-cutter unit, move the unit in the direction of the arrow until the lock engages. (This step is unnecessary if there is no auto-cutter unit.)

④ Push the two head open levers for the printer mechanism to the rear to release the set cover lock. Leave the head up lever towards the rear at this time.

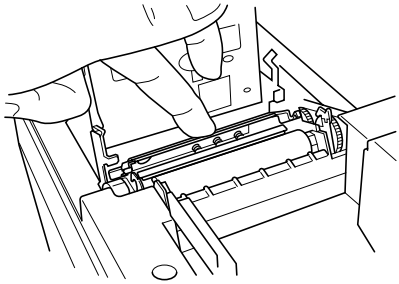




⑤ Open the front of the set cover to expose the printing surface of the head.

⑥ Use a cotton swab or a soft cloth dipped in alcohol (ethyl or isopropyl alcohol) to clean the thermal element of the print head.

⑦ Clean the surface platen by holding a soft, dry cloth in place and turning the paper feed knob.



⑧ Once the cleaning has been completed, confirm that the head up lever is to the rear and press the top of the set cover so that the head open lever and set cover engage.

Cautions

* Never use sharp tools or abrasive materials, such as a knife or sandpaper, to clean the thermal element of the print head. Serious damage will result.
* Always wait until the alcohol has completely dried before printing.
* Always wait until the thermal element of the print head has cooled before cleaning.

(2) Other Cleaning

It is also recommended that any dust or other particles be removed during cleaning. They can attach to the paper and cause poor printing.

MEMO

CE

Manufacturer's Declaration of Conformity

This product has been designed and manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives:

Electro Magnetic Compatibility Directive 89/336/EEC as of May 1989 (plus revisals 91/263/EEC, 92/31/EEC, 93/68/EEC)

Low Voltage Directive 73/23/EEC as of February 1973 (plus revisal 93/68/EEC)

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Gomm Road, High Wycombe
Bucks. HP13 7DL, U.K.

star
MICRONICS

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